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JUN 13 2007

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) An ink bag holding ink therein, comprising:
a flexible bag body of a generally rectangular form; and
a holding member attached to one edge of said bag body, said holding member comprising:
an ink filling opening for filling said bag body with ink;
an ink discharging ~~opening~~ port for discharging the ink inside said bag body; and
an engaging part for holding said ink bag to a cartridge case in which said ink bag is accommodated,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of said bag main body.

2. (original) The ink bag as claimed in claim 1, wherein a width-to-height ratio (W/H) of said bag main body falls in the range of $1 \leq W/H \leq 1.5$.

Claim 3 (canceled).

4. (original) The ink bag as claimed in claim 1, wherein
said holding member of said ink bag is held in such a state that said ink discharge port is located generally at the center of said cartridge case in a height direction thereof when said ink bag is

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accommodated in said cartridge case.

5. (original) The ink bag as claimed in claim 1, wherein said ink filling opening is sealed by welding in the state in which said bag main body is filled with ink.

6. (original) The ink bag as claimed in claim 1, wherein said holding member is provided to a longer edge of said ink bag main body.

7. (original) The ink bag as claimed in claim 1, further comprising, at said ink discharging port, an elastic member sealing an opening at a distal end part of said ink discharging port and a cap member holding down said elastic member.

8. (original) The ink bag as claimed in claim 7, wherein said holding member includes a stepped part on a circumferential surface of said ink discharge port for engagement with an engaging piece provided on said cap member.

9. (original) The ink bag as claimed in claim 7, wherein said elastic member is a columnar member of a rubber material of any of silicone, fluorine and a butyl.

10. (original) The ink bag as claimed in claim 7, wherein said cap member is a cylindrical member having a flange part that holds down said elastic member, and wherein said cylindrical member has plural engaging pieces bent inward.

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Claims 11-22 (canceled).

23. (currently amended) An ink cartridge accommodating therein an ink bag, said ink bag comprising:

an ink filling opening for filling ink to said bag main body;
an ink discharge port for discharging said ink inside said bag main body; and
an engaging part for engagement with a corresponding engagement part provided to at least one of case half bodies, said case half bodies constituting together a cartridge case of said ink cartridge,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of said bag main body.

24. (currently amended) An ink-jet recording apparatus loaded with an ink cartridge from a front side thereof, said ink cartridge accommodating therein an ink bag, said ink bag comprising:

an ink filling opening for filling ink to said bag main body;
an ink discharge port for discharging said ink inside said bag main body; and
an engaging part for engagement with a corresponding engagement part provided to at least one of case half bodies, said case half bodies constituting together a cartridge case of said ink cartridge,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of said bag main body.

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25. (currently amended) An ink cartridge for supplying ink to outside through an ink discharge port, comprising:

case half bodies forming together a single cartridge case of said ink cartridge, at least one of said case half bodies having a holding part for holding a holding member formed with an ink filling opening and said ink discharge port;

an elastic member provided at a distal end part of said ink discharge port of said holding member for sealing an opening; and

a cap member for holding down said elastic member,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of the case half body.

26. (currently amended) The ink cartridge as claimed in claim 25, wherein ~~there is~~ provided said holding member includes a stepped part to a circumference surface of said ink discharge port so as to engage with an engaging piece provided it to said cap member.

27. (original) The ink cartridge as claimed in claim 25, wherein said elastic member is formed of a rubber material selected from any of a silicone rubber material, a fluorine rubber material and a butyl rubber material.

28. (original) The ink cartridge as claimed in claim 25, wherein said cap member comprises a cylindrical member having a flange part for holding down said elastic member, and wherein said cylindrical member having plural engaging piece bent inward.

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29. (currently amended) An ink-jet recording apparatus loaded with an ink cartridge from a front side thereof,

said ink cartridge supplying ink to said ink-jet recording apparatus through an ink discharge port and comprising:

case half bodies forming together a single cartridge case of said ink cartridge, at least one of said case half bodies having a holding part for holding a holding member formed with an ink filling opening and said ink discharge port;

an elastic member provided at a distal end part of said ink discharge port of said holding member for sealing an opening; and

a cap member for holding down said elastic member,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of the case half body.

30. (currently amended) An ink bag for holding ink, comprising:

a flexible bag main body; and

a holding member fixed to said bag main body, said holding member comprising

an ink filling opening for filling ink to said bag main body,

an ink discharge port for discharging said ink inside said bag main body, and

an engaging part for holding said ink bag to a cartridge case formed of case half bodies,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of said bag main body.

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31. (original) The ink bag as claimed in claim 30, wherein said ink discharge port includes a cylindrical part forming an outlet hole of said ink inside said bag main body, and wherein said cylindrical part is formed with a material that does not exert influence to properties of said ink.

32. (original) The ink bag as claimed in claim 31, wherein said cylindrical part has a holding part holding an elastic member inserted to said outlet hole for sealing in the form of a unitary body.

33. (original) The ink bag as claimed in claim 30, wherein said ink discharge port has an elastic member for sealing an outlet hole of said ink inside said bag main body, and wherein said elastic member is formed with a material that does not exert influence on properties of said ink.

34. (original) The ink bag as claimed in claim 33, wherein said elastic member is formed of a rubber of silicone or silicone based rubber not exerting influence to properties of said ink.

35. (original) The ink bag as claimed in claim 30, wherein said ink discharge port is provided with a cap member so as to cover at least a part of an elastic member sealing an ink outlet hole of the ink inside said bag main body, said cap member being formed with a material not exerting influence on the properties of said ink.

36. (original) The ink bag as claimed in claim 34, wherein there is formed a stepped part for engagement with an engaging piece provided to said cap member on a circumferential

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surface of said ink discharge port.

37. (original) An ink bag as claimed in claim 34, wherein said cap member is formed of a cylindrical member having a flange part for holds down said elastic member, and wherein said cylindrical part has plural engaging pieces bent inward.

38. (original) The ink bag as claimed in claim 33, wherein
an outer diameter D of said elastic member and an inner diameter D' of a part to which said elastic member is inserted forms a ratio $D:D'$ so as to fall in the range of 1:0.85 - 1:0.92.

39. (original) The ink bag as claimed in claim 33, wherein a thickness t of the said elastic member and a depth H of a part in which said elastic member is inserted forms a ratio $t:H$ falling in the range of 1:0.77 - 1:1.

40. (original) The ink bag as claimed in claim 33, wherein a hollow needle pierced into said elastic member for taking out said ink held inside said bag main body has a diameter d determined such that a ratio $d:D$ of said diameter d to an outer diameter D of said elastic member falls in a range of 1:3 - 1:10.

41. (original) The ink bag as claimed in claim 33, wherein a hollow needle pierced into said elastic member for taking out said ink held inside said bag main body has a diameter d determined such that a ratio $d:t$ of said diameter d to a thickness t of said elastic member falls in a range of 1:1.5 - 1:3.5.

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42. (original) The ink bag as claimed in claim 30, wherein said holding member of said ink bag is held in a state that said ink discharge port is located generally at a center in a height direction of said cartridge case when said ink bag is accommodated in said cartridge case.

43. (original) The ink bag as claimed in claim 30, wherein said ink filling opening is sealed by welding in the state in which said ink bag is filled with said ink.

44. (currently amended) An ink cartridge accommodating an ink bag therein, comprising:
at least first and second cases parts of similar external appearance, said first case part and said second case part forming a single cartridge case when assembled with each other,
said single cartridge case being disassembled into said first and second case parts,
said ink bag comprising:

a flexible bag main body; and

a holding member fixed to said bag main body, said holding member comprising

an ink filling opening for filling ink to said bag main body,

an ink discharge port for discharging said ink inside said bag main body, and

an engaging part for holding said ink bag to a cartridge case formed of case half

bodies,

said holding member of said ink bag being held to an engagement holding means provided to said first case part,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of said bag main body.

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45. (currently amended) An ink-jet recording apparatus loaded with an ink cartridge accommodating an ink bag holding ink therein, said ink cartridge comprising:

at least first and second cases parts of similar external appearance, said first case part and said second case part forming a single cartridge case when assembled with each other,

said single cartridge case being disassembled into said first and second case parts,

said ink bag comprising:

a flexible bag main body; and

a holding member fixed to said bag main body, said holding member comprising

an ink filling opening for filling ink to said bag main body,

an ink discharge port for discharging said ink inside said bag main body, and

an engaging part for holding said ink bag to a cartridge case formed of case half bodies,

said holding member of said ink bag being held to an engagement holding means provided to said first case part,

wherein said ink filling opening and said ink discharge port of said holding member are located generally at a center of an edge of said bag main body.

46. (original) An ink-jet recording apparatus as claimed in claim 45, wherein said ink cartridge is loaded from a front side of an apparatus body of said ink-jet recording apparatus.